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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,876	08/29/2001	Kazushi Higashi	2001_1194A	5635

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EXAMINER
GRAYBILL, DAVID E

ART UNIT	PAPER NUMBER
2827	

DATE MAILED: 03/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/940,876	HIGASHI ET AL.	
	Examiner	Art Unit	
	David E Graybill	2827	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 November 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1-10 the scope of the term "type" cannot be determined because the common qualities that distinguish the individual members of the class *type* as an identifiable class are not recited in the claims, and they cannot otherwise be determined.

In the rejections infra, reference labels are generally recited only for the first recitation of identical claim language.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of

section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1 and 3-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Bertin (6155899).

At column 4, line 52 to column 6, line 16, Bertin teaches the following:

1. A method for assembling an integral type electronic component, which comprises storing and holding an electronic component 148 to a component storage part 144 of a first board 142; and electrically connecting a second board 140 to the electronic component held to the first board, thereby forming the integral type electronic component of the first board and the second board.

3. An integral type electronic component which comprises: a first board with a component storage part for storing and

holding an electronic component; and a second board which is electrically connected to the electronic component held to the first board, thereby being united with the first board.

4. The integral type electronic component according to 3, wherein the component storage part has a side wall for shielding light of a light-emitting element when the electronic component is the light-emitting element.

5. The integral type electronic component according to 3, wherein the first board is formed of any one of glass, ceramic and an organic resin

6. The integral type electronic component according to 4, wherein the first board is formed of any one of glass, ceramic and an organic resin.

To further clarify the teaching wherein the component storage part has a side wall for shielding light of a light-emitting element when the electronic component is the light-emitting element, it is noted that the limitation, "for shielding light of a light-emitting element when the electronic component is the light-emitting element," is a statement of intended use of the product which does not result in a structural difference between the claimed product and the product of Bertin. Further, because the product of Bertin has the same structure as the claimed product, it is inherently

capable of being used for the intended use, and the statement of intended use does not patentably distinguish the claimed product from the product of Bertin. Similarly, the manner in which a product operates is not germane to the issue of patentability of the product; Ex parte Wikdahl 10 USPQ 2d 1546, 1548 (BPAI 1989); Ex parte McCullough 7 USPQ 2d 1889, 1891 (BPAI 1988); In re Finsterwalder 168 USPQ 530 (CCPA 1971); In re Casey 152 USPQ 235, 238 (CCPA 1967). Also, "Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim."; Ex parte Thibault, 164 USPQ 666, 667 (Bd. App. 1969). And, claims directed to product must be distinguished from the prior art in terms of structure rather than function. In re Danley, 120 USPQ 528, 531 (CCPA 1959). "Apparatus claims cover what a device is, not what a device does [or is intended to do]." Hewlett-Packard Co. v. Bausch & Lomb Inc., 15 USPQ2d 1525, 1528 (Fed. Cir. 1990).

Claims 1 and 3-5 are rejected under 35 U.S.C. 102(a) as being anticipated by Kelkar (6084308).

At column 4, line 19 to column 7, line 62, and column 8, lines 24-60, Kelkar teaches the following:

1. A method for assembling an integral type electronic component, which comprises storing and holding an electronic

component 306 to a component storage part of a first board 302; and electrically connecting a second board 316 to the electronic component held to the first board, thereby forming the integral type electronic component of the first board and the second board.

3. An integral type electronic component which comprises: a first board with a component storage part for storing and holding an electronic component; and a second board which is electrically connected to the electronic component held to the first board, thereby being united with the first board.

4. The integral type electronic component according to 3, wherein the component storage part has a side wall for shielding light of a light-emitting element when the electronic component is the light-emitting element.

5. The integral type electronic component according to 3, wherein the first board is formed of any one of glass, ceramic

To further clarify the teaching wherein the component storage part has a side wall for shielding light of a light-emitting element when the electronic component is the light-emitting element, it is noted that the limitation, "for shielding light of a light-emitting element when the electronic component is the light-emitting element," is a statement of intended use of the product which does not result in a

structural difference between the claimed product and the product of Kelkar. Further, because the product of Kelkar has the same structure as the claimed product, it is inherently capable of being used for the intended use, and the statement of intended use does not patentably distinguish the claimed product from the product of Kelkar.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35

U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertin as applied to claims 1 and 3-6, and claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelkar as applied to claims 1 and 3-5, and further in combination with Kuczynski (6356686).

Neither Bertin nor Kelkar appear to explicitly teach the following:

7. The integral type electronic component according to 3, wherein the electronic component is held to the component storage part with a photo-curing type insulating resin.

8. The integral type electronic component according to 4, wherein the electronic component is held to the component storage part with a photo-curing type insulating resin.

9. The integral type electronic component according to 5, wherein the electronic component is held to the component storage part with a photo-curing type insulating resin.

10. The integral type electronic component according to 6, wherein the electronic component is held to the component storage part with a photo-curing type insulating resin.

Nonetheless, at column 6, line 19 to column 7, line 59, Kuczynski teaches wherein an electronic component 230 is held to

a component storage part with a photo-curing type insulating resin 400. Moreover, it would have been obvious to combine the invention of Kuczynski with the inventions of Bertin and Kelkar because it would facilitate holding the components.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kelkar as applied to claim 1, and further combination with Brofman (6220499).

Kelkar teaches the following:

2. The method for assembling the integral type electronic component according to 1, wherein bumps 152*a-n* of the second board are electrically connected to the electronic component after the electronic component is held to the first board.

However, Kelkar does not appear to explicitly teach wherein bumps of the second board are flattened before the second board is electrically connected to the electronic component after the electronic component is held to the first board.

Nevertheless, at column 4, lines 19-37, Brofman teaches wherein bumps 20 of a board 16 are flattened before the board is electrically connected to an electronic component. In addition, it would have been obvious to combine the invention of Brofman with the invention of Kelkar because it would facilitate electrical connection.

The art made of record and not applied to the rejection is considered pertinent to applicant's disclosure. It is cited primarily to show inventions similar to the instant invention.

Any telephone inquiry of a general nature or relating to the status (MPEP 203.08) of this application or proceeding should be directed to Group 2800 Customer Service whose telephone number is 703-306-3329.

Any telephone inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Graybill at (703) 308-2947. Regular office hours: Monday through Friday, 8:30 a.m. to 6:00 p.m.

The fax phone number for group 2800 is 703/3087724.

David E. Graybill
Primary Examiner
Art Unit 2827

D.G.
14-Mar-03